AMENDMENT TO THE CLAIMS

Claims 1-257 (canceled)

258. (currently amended) A memory element, comprising:

a first dielectric material having an opening, said opening having a sidewall surface and a bottom surface;

a conductive material lining the sidewall surface of said opening;

a second dielectric material formed over said conductive material within said opening; and

a programmable resistance material electrically coupled to a top surface of said conductive material, said top surface having a lateral dimension less than 1000 Angstroms, said conductive material having a substantially uniform thickness along said sidewall surface.

259. (previously presented) The memory element of claim 258, wherein said conductive material is at least one conductive sidewall spacer.

260. (previously presented) The memory element of claim 258, wherein said conductive material is formed over a portion of the bottom surface of said opening, said portion being less than the entire bottom surface of said opening.

261. (previously presented) The memory element of claim 258, wherein said opening is a trench.

262. (previously presented) The memory element of claim 258, wherein said opening is a hole.

263. (previously presented) The memory element of claim 258, wherein said conductive material comprises at least one material selected from the group consisting of titanium

nitride, titanium aluminum nitride, titanium carbonitride, titanium silicon nitride, carbon, N- doped polysilicon, titanium tungsten, tungsten silicide, tungsten, molydenum, N+ doped polysilicon.

264. (previously presented) The memory element of claim 258, wherein said programmable resistance material includes a phase change material.

265. (previously presented) The memory element of claim 258, wherein said programmable resistance material includes a chalcogen element.

266. (previously presented) The memory element of claim 258, wherein said top surface is a top edge of said conductive material.

267. (previously presented) The memory element of claim 258, wherein said conductive material includes one or more protruding portions extending toward said programmable resistance material.

268. (previously presented) The memory element of claim 258, wherein said first dielectric material and said second dielectric material are formed of the same material.

Claims 269-275 (canceled)

276. (new) The memory element of claim 258, wherein said top surface has a dimension less than 500 Angstroms.

277. (new) The memory element of claim 258, wherein said top surface has a dimension between about 50 and about 1000 Angstroms.

278. (new) A memory element, comprising:

a first dielectric material having an opening, said opening having a sidewall surface and a bottom surface;

a conductive material lining the sidewall surface of said opening;

a second dielectric material formed over said conductive material within said opening; and

a programmable resistance material electrically coupled to a top surface of said conductive material, said conductive material being formed over a portion of the bottom surface of said opening, said portion being less than the entire bottom surface, said portion being adjacent to the sidewall surface of said opening, said second dielectric layer being formed over the remainder of the bottom surface of said opening.

279. (new) The memory element of claim 278, wherein said conductive material is at least one conductive sidewall spacer.

280. (new) The memory element of claim 278, wherein said opening is a trench.

281. (new) The memory element of claim 278, wherein said opening is a hole.

282. (new) The memory element of claim 278, wherein said conductive material comprises at least one material selected from the group consisting of titanium nitride, titanium aluminum nitride, titanium carbonitride, titanium silicon nitride, carbon, N- doped polysilicon, titanium tungsten, tungsten silicide, tungsten, molydenum, N+ doped polysilicon.

283. (new) The memory element of claim 278, wherein said programmable resistance material includes a phase change material.

284. (new) The memory element of claim 278, wherein said programmable resistance material includes a chalcogen element.

285. (new) The memory element of claim 278, wherein said conductive material includes one or more protruding portions extending toward said programmable resistance material.

286. (new) The memory element of claim 278, wherein said first dielectric material and said second dielectric material are formed of the same material.

287. (new) The memory element of claim 278, wherein said top surface has a lateral dimension less than 1000 Angstroms.

288. (new) The memory element of claim 278, wherein said top surface has a lateral dimension between about 50 and about 1000 Angstroms.

289. (new) The memory element of claim 278, wherein said top surface has a lateral dimension less than 500 Angstroms.